

Amendments to the Claims: No claim amendments are made in this response. The listing of claims are included herein for the convenience of the Examiner.

Listing of Claims:

1. (Previously Presented) A process for the separation of a stream containing propane and/or butanes from a natural gas liquid contaminated with alkyl mercaptans by fractional distillation at such a pressure that a separated overheads stream containing said propane and/or butanes is at a temperature in the range 50 to 100°C, comprising introducing sufficient oxygen into said natural gas liquid to oxidise the mercaptans therein and subjecting the resultant mixture to the fractional distillation in a column including at least one bed of a catalyst capable, under the prevailing conditions, of oxidising mercaptans to higher boiling point sulphur compounds, and separating the higher boiling point sulphur compounds as part of a liquid phase from the distillation.
2. (Original) A process according to claim 1 wherein the catalyst comprises a granular material containing a transition metal on a support.
3. (Previously Presented) A process according to claim 2 wherein the transition metal comprises copper, manganese or cobalt or a mixture of two or more of these.
4. (Previously Presented) A process according to claim 3 wherein the catalyst is a granular material comprising copper sulphates, sodium chloride and water on a clay support.
5. (Previously Presented) A process according to claim 1 wherein the amount of mercaptans present in the natural gas liquid is less than 2000 ppm volume.
6. (Previously Presented) A process according to claim 1 wherein the distillation is effected at a pressure in the range 5 to 25 bar abs.
7. (Previously Presented) A process according to claim 1 wherein the oxygen is supplied by dissolving air in the natural gas liquid.
8. (Previously Presented) A process according to claim 1 wherein water is incorporated into the natural gas liquid in such an amount that it is miscible with the natural gas liquid under the prevailing conditions.